

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: KI-OOK PARK *et al.*

Original Patent No. 5,917,679 issued on 29 June 1999

Serial No.: *to be assigned*

Examiner: *to be assigned*

Filed: 28 June 2001

Art Unit: *to be assigned*

For: PSEUDO CONTACT TYPE NEGATIVE PRESSURE AIR BEARING SLIDER

**DECLARATION AND POWER OF ATTORNEY FOR REISSUE
APPLICATION BY INVENTORS AND ASSIGNEE**

Assistant Commissioner
for Patents

Washington, D.C. 20231

Box: REISSUE

Sir:

We, Ki-Ook Park, In-Eung Kim, In-Seop Jeong, Tae-Seok Park and Samsung Electronics Co., Ltd., in support of the reissue declaration of inventors, declare and state as follows:

1. We believe that Ki-Ook Park, In-Eung Kim, In-Seop Jeong and Tae-Seok Park are the original, first, and joint inventors of the invention entitled *PSEUDO CONTACT TYPE NEGATIVE PRESSURE AIR BEARING SLIDER* described in U.S. Patent No. 5,917,679 issued on June 29, 1999 from original Application No. 08/915,342 filed August 22, 1997, and described in the foregoing attached reissue application. We do not believe that this invention was known or used in the United States before Ki-Ook Park's, In-Eung Kim's, In-Seop Jeong's and Tae-

Seok Park's invention thereof, or patented or described in any publication in any country before their invention thereof or more than one year prior to the original application date of August 22, 1997 or in public use or on sale in the United States more than one year prior to the original application date of August 22, 1997. This invention has not been patented in any country foreign to the United States prior to the date of the original application on an application filed by Ki-Ook Park, In-Eung Kim, In-Seop Jeong and Tae-Seok Park or their legal representatives or assigns more than 12 months before the original application. We have reviewed and understand the contents of the specification and claims as amended by the attached reissue application.

2. Ki-Ook Park's residence, post office address and citizenship are as stated below next to his signature.

3. In-Eung Kim's residence, post office address and citizenship are as stated below next to his signature.

4. In-Seop Jeong's residence, post office address and citizenship are as stated below next to his signature.

5. Tae-Seok Park's residence, post office address and citizenship are as stated below next to his signature.

I. Certificate Under 37 C.F.R. §3.73(b)

6. Samsung Electronics Co. Ltd. certifies that it has examined the documents of title and that it is the assignee of the entire right, title, and interest in U.S Patent No. 5,917,679 by virtue of the assignment from Ki-Ook Park, In-Eung Kim, In-Seop Jeong and Tae-Seok Park to Samsung Electronics Co. Ltd. of said U.S. Patent No. 5,917,679 issued on June 29, 1999, recorded on reel 9030 at frame 0967. A copy of the assignment is attached herewith.

7. Yong-Tae Lee is a Vice President of Samsung Electronics Co. Ltd. and is authorized to act on behalf of the assignee. Yong-Tae Lee's residence, post office address, and citizenship are as stated below next to his signature.

II. Consent of Assignee

8. The assignee consents to the accompanying application for reissue.

III. Reasons For Requesting Reissue

9. We believe the original U.S. Patent No. 5,917,679 contains an error that occurred without deceptive intent that renders the patent partly inoperative as a legal document by reason of the patentees claiming less than they had a right to claim.

IV. Summary of Prosecution File History

10. For the Examiner to understand fully the circumstances which gave rise to the

decision to file this reissue application, the invention and the prosecution history of Application No. 08/915,342 are summarized:

U.S. Patent Application Serial No. 08/915,342 was filed on August 22, 1997. Application Serial No. 08/915,342 included a disclosure of various improvements over conventional negative pressure cavity sliders. The invention disclosed by the application includes several novel and useful structural elements that improves the flight characteristics of a negative pressure cavity sliders, including a generally U-shaped air bearing platforms to define the negative pressure cavity with arcuate side walls the cutoff regions between the rear edges of the U-shaped platform and the rear edge of the slider body, and one or more leading air bearing platforms separate from the U-shaped platform, each of the above features being separately patentable. The original application of August 22, 1997 was filed with 20 claims.

The original claim 1 recited:

1. A negative pressure air bearing slider, comprising:
a slider body for flying above a surface of a recording disc during relative rotation of the disc, the slider body having a principal surface for confronting the disc surface, said principal surface having a lead portion, a rear portion, a first side portion and a second side portion, wherein the lead portion is spaced upstream of the rear portion relative to a longitudinal direction of said slider body which is coincident with a tangential rotational direction of the recording disc, and wherein the first side portion is spaced from the second side portion relative to a lateral direction of said slider body;
first and second projections extending from said lead portion of said principal surface of said slider body to define first

and second air bearing surfaces, respectively, wherein said first and second air bearing surfaces are spaced apart from each other in the lateral direction of said slider body;

a third U-shaped projection extending from said principal surface and having a curved front wall portion at least partially located between said first and second projections and first and second side wall portions extending from opposite ends of said curved front wall portion to said rear portion of said principal surface so as to define a rounded negative pressure cavity therein, said curved front wall portion and said first and second curved side wall portions being spaced apart from said first and second projections, wherein the first and second curved side wall portions respectively extend said first and second side portions of said principal surface and define third and fourth air bearing surfaces located at said rear portion of said principal surface and spaced apart from each other relative to the radial direction of said slider body;

a fourth projection extending from said rear portion of said principal surface of said slider body at a position central located in the lateral direction of said slider body; and

a transducer mounted on a rear edge of said third projection so as to establish pseudo contact with the disc surface while said slider body is flying above said disc surface.

On September 1, 1998, the Examiner issued a first Office Action (Paper No. 4) in which claims 1-10 and 14 under 35 U.S.C. 102(b) as allegedly being anticipated by US Patent No. 5,200,868 to Chapin et al. (Fig. 3j thereof in particular), claim 11-13 and 15-20 were indicated to be allowable but for their dependence from the rejected claims.

In a subsequent amendment (Paper No. 5) filed in response to the first office action, claims 4, 5, 6, 8 and 20 were cancelled, claims 1- 3, 7, 9-19 were amended, and new claims 21-25 were added. A proposed drawing change to Figs. 4 and 5 were also submitted concurrently with the response.

On December 7, 1998, a Notice of Allowability (Paper No. 8) allowing all claims then pending and approving the drawing changes was issued.

On February 19, 1999, the Applicants paid issue fee, and concurrently filed a set of formal drawings. However, on March 19, 1999, upon discovery of errors in several figures as submitted, the Applicants filed a petition to have a post issue fee payment Rule 312 amendment containing proposed changes to those figures in error.

U.S. Patent No. 5,917,679 issued on June 29, 1999, without the corrections to the drawings.

V. How the Error Was Discovered

11. Through consultation with new counsel, the assignee became aware that the Applicant's inventive feature of a negative pressure cavity slider having the aforesaid independently novel and patentable structural elements may not be fully protected because each of the inventive elements were claimed as a combination in a single independent claim, and thus unduly limited by, the structures recited in claims 1 and 16 as issued. Consequently, the issued claims are too narrow and an error was made in not obtaining claims of sufficient breath to cover the subject that the inventors regard as their invention. Accordingly, the inventors are presenting and praying allowance of broader claims in this re-issue request.

VI. The Error Was Made Without Deceptive Intent

12. All errors being corrected by the re-issue application of U.S. Patent No. 5,917,679

were made without deceptive intent.

VII. How the Error is Corrected

13. To correct the error, new claims 21 through 51 have been added to recite important features of the invention individually and more adequately.

We now understand and believe that the combining of the features, reciting the elements as a combination in an independent claim, *i.e.*, claims 1 and 16, is unnecessarily limiting. The patentability of the inventive features were not separately argued, referred to, disclosed or taught by prior art of record, or examined on its merit during prosecution of the subject '679 patent.

VIII. Support for New Claims

14. No new matter has been added by the new claims 21 through 51. Support for each of the following new claims can be readily found in the parent application Serial No. 08/915,342 filed on August 22, 1997, and are, *inter alia*, as follows:

New claims 21 through 51, Figs. 4 through 12.

IX. Acknowledgment of Duty of Disclosure

15. We acknowledge the duty to disclose to the United States Patent and Trademark Office information which is material to the examination of this reissue application in accordance with 37 C.F.R. § 1.56(a).

X. Offer to Surrender Patent

16. We request that we be allowed to surrender, and hereby offer to surrender our said U.S. Letters Patent No. 5,917,679 before allowance of the reissue application, and that Letters Patent may be issued for the same invention upon the foregoing amended specification and claims.

XI. Power of Attorney and Correspondence Address

17. All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. We hereby appoint the registered patent attorneys listed below to prosecute this reissue application and transact all business in the U.S. Patent and Trademark Office connected herewith.

Robert E. Bushnell (Reg. No. 27,774)

R.E. BUSHNELL & LAW FIRM
1522 K Street, N.W., Suite 300
Washington, D.C. 20005-1202

Customer No.: 008-439

Telephone No.: (202) 408-9040 (main)
Facsimile No.: (202) 289-7100 (main)

18. We declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this reissue application or any patent issued thereon.

1st Inventor's Name: KI-OOK PARK

Country of Citizenship: Republic of Korea

Inventor's Signature: _____ Date: _____

Residence: Seoul, Republic of Korea

Post Office Address: 7-633 Mapo Mansion, Dohwa 1-Dong, Mapo-Gu, Seoul, Republic of Korea

2nd Inventor's Name: IN-EUNG KIM

Country of Citizenship: Republic of Korea

Inventor's Signature: _____ Date: _____

Residence: Seoul, Republic of Korea

Post Office Address: 10-1305 Woosung Apt., Jeonmong 3-Dong, Dongdaemun-Gu, Seoul, Republic of Korea

3rd Inventor's Name: IN-SEOP JEONG

Country of Citizenship: Republic of Korea

Inventor's Signature: _____ Date: _____

Residence: Seoul, Republic of Korea

Post Office Address: 2-1005 Yoeksam Hanshin Apt., Dogok 1-Dong, KangNam-Gu,
Seoul, Republic of Korea

4th Inventor's Name: TAE-SEOK PARK

Country of Citizenship: Republic of Korea

Inventor's Signature: _____ Date: _____

Residence: Suwon, Republic of Korea

Post Office Address: 7-1006 Samsung 1-Cha Apt., Maetan-3Dong, Paldal-Gu, Suwon,
Kyunggi-Do Republic of Korea

ASSIGNEE: SAMSUNG ELECTRONICS CO., LTD.

The undersigned officer of the Assignee, is duly authorized to make this Declaration, and has examined the documents of title, and determined that Samsung Electronics Co., Ltd., the assignee of U.S. Patent No. 5,917,679 by virtue of an Assignment from all inventors recorded in the U.S. Patent & Trademark Office at Reel No. 9030, at Frame No. 0967 on the 6th day of March 1998, consents to the filing of this reissue application for the reissue of U.S. Patent No. 5,917,679

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

By: YONG T. LEE

Signature: _____ Date: _____

Assignee's Title: Vice President, Samsung Electronics Co., LTD.

Country of Citizenship: Republic of Korea

Residence: KoYang city, Republic of Korea

Post Office Address: 705-202 Jeong-Bal Maeul 7 Donji, Modu1-Dong, Ilsan-Gu,
KoYang Kyunggi-Do, Republic of Korea